10/764,852

## Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

## Listing of Claims:

- 1. (canceled).
- 2. (currently amended) A process for production of acrylic acid, which is a process comprising the step of carrying out a catalytic gas phase oxidation reaction of acrolein with molecular oxygen or a molecular-oxygen-containing gas, thereby producing the acrylic acid;

wherein the reaction is carried out in the presence of a composite-oxide catalyst shown by the following general formula (1):

Mo<sub>4</sub>V<sub>b</sub>W<sub>c</sub>Cu<sub>d</sub>A<sub>e</sub>B<sub>f</sub>C<sub>g</sub>O<sub>x</sub> (1) (wherein: Mo is molybdenum; V is vanadium; W is tungsten; Cu is copper; A is at least one element selected from among cobalt, nickel, iron, lead, and bismuth; B is at least one element selected from among antimony, niobium, and tin; C is at least one element selected from among silicon, aluminum, titanium, and zirconium; and O is oxygen; and further, a, b, c, d, e, f, g, and x denote atomic ratios of Mo, V, W, Cu, A, B, C, and O respectively; and, in the case of a = 12, the following inequalities are satisfied:  $2 \le b \le 15$ ;  $0 < c \le 10$ ;  $0 < d \le 6$ ;  $0 < c \le 30$ ;  $0 \le f \le 6$ ; and  $0 \le g \le 60$ ; and x is a numerical value as determined by the oxidation state of each element);

wherein a supply source of a component said element A for preparing the catalyst is a composite of the component at least one element [[A]] selected from among cobalt, nickel, iron, lead and bismuth and at least one element selected from among molybdenum, vanadium, and copper.

(18450.boc) (Amendment and Remarks--page 2 of 11)

10/764,852

- 3. (currently amended) A process for production of acrylic acid according to claim 2, which comprises the steps of:
- (1) introducing a mixed gas into a first fixed-bed multitubular reactor to thereby produce an acrolein-containing gas, wherein the mixed gas contains high-concentration-propylene and oxygen, but is substantially free from steam, and wherein the first fixed-bed multitubular reactor is packed with a composite-oxide catalyst including molybdenum and bismuth as essential components;
- (2) introducing the resultant acrolein-containing gas into a second fixed-bed multitubular reactor to thereby produce an acrylic-acid-containing gas, wherein the second fixed-bed multitubular reactor is packed with a composite-oxide catalyst including molybdenum and vanadium as essential components; and
- (3) introducing the resultant acrylic-acid-containing gas into an acrylic-acid-absorbing column to thereby collect the acrylic-acid-containing gas as a high-concentration acrylic acid solution;

wherein the composite-oxide catalyst as recited in claim 2 is used as the composite-oxide catalyst which is packed into the second fixed-bed multitubular reactor; and

with the process further comprising the steps of: dividing the inside of each reaction tube of the second fixed-bed multitubular reactor in a tubular axial direction to thereby form at least two reaction zones; and then packing these reaction zones with the composite-oxide catalysts as recited in claim 2 different as to the amount of the component element A in such a manner that the amount

10/764,852

of the component element A decreases from the gas-inlet side of each reaction tube toward its gas-outlet side.

4. (original) A process for production of acrylic acid according to claim 3, wherein the mixed gas which is introduced into the first fixed-bed multitubular reactor further contains a saturated hydrocarbon which does substantially not react by oxidation in this reactor.